

DRAFT CANDIDATE INDICATORS

(Revised 05/29/01)

California Environmental Protection Agency
ENVIRONMENTAL PROTECTION INDICATORS FOR CALIFORNIA (EPIC)

ISSUE CATEGORY: LAND, WASTE and MATERIALS MANAGEMENT: SOLID WASTE

Issue 1: Material use

Issue 2: Energy consumption/production

Issue 3: Waste generation

Sub-issue 3.1: Waste generation, in general

<i>INDICATOR</i>	<i>TYPE</i>	<i>SOURCE</i>	<i>DATABASE</i>	<i>Rationale For Selection</i>
<p>Amount of estimated statewide waste generated per capita.</p> <p>Estimated statewide waste generation is determined by taking the statewide base year generation tonnage and estimating to the current year generation using the board approved adjustment method (changes in economy and population).</p>	I	CIWMB, SRRE's, EDD, DOF, BOE, DIR	JGAPS, MARS http://www.ciwm b.ca.gov/LGCentral/Rates/Diversi on/RateTabl.htm	High quality data; Can show trends in the amount of waste generated and diverted annually.
<p><u>Waste diversion</u> Estimated amounts of Statewide waste diverted from disposal, per capita rates</p> <p>Statewide waste diversion is estimated by subtracting DRS disposal from the estimated statewide generation for the current year. This estimate gauges waste diversion progress toward the 50 percent diversion goal.</p>	I	CIWMB, County disposal reports, BOE, DIR, DOF, EDD, SRREs BOE = Taxable Sales DOF = Population EDD = Employment data DIR = CPI consumer price index where inflation is corrected SRRE = Base year data	JGAPS, MARS, DRS http://www.ciwm b.ca.gov/LGCentral/Rates/Diversi on/RateTabl.htm	High quality data; data will show trends for waste diverted.

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<p><u>Components of a "Waste diversion index"</u></p> <p>Estimated amounts of Statewide Waste diverted from disposal, per capita rates.</p> <p>Derived from base year reports and adjustments to changes in economy and population. The Online Diversion Rate Measurement calculator helps jurisdictions calculate their diversion rate for an annual report due to the Board August 1 every year. This estimate gauges waste diversion program progress toward the 50 percent diversion goal.</p>	I	<p>BOE, DOF, EDD, DIR, SRREs</p> <p>BOE = Taxable Sales</p> <p>DOF = Population</p> <p>EDD = Employment data</p> <p>DIR = CPI consumer price index where inflation is corrected</p> <p>SRRE = Base year data</p>	<p>JGAPS, MARS, DRS</p> <p>http://www.ciwm.b.ca.gov/LGCentral/Rates/Diversi on/RateTabl.htm</p>	High quality data; data will show trends for waste diverted.
<p>Number of tires, expressed in tons, diverted from landfill disposal in state annually through grants and loans and recycling and market development.</p> <p>Since passage of the Tire Recycling Act in 1989, California has dramatically increased the number of waste tires diverted from landfill disposal and sent to beneficial end uses. The Board estimates that from 1990 to 1999, the number of tires recycled in the state increased 118 percent from 9.2 million to 20.1 million. In 1999, Californians generated 31.1 million waste tires, or almost 1 waste tire per person. The beneficial use of 20.1 million of these tires represents a recycling rate of 65 percent during 1999.</p>	I	CIWMB	<p>Waste Tire Disposal</p> <p>http://www.ciwm.b.ca.gov/TireDisposal/default.htm</p> <p>http://www.ciwm.b.ca.gov/TireDisposal/Haulers/Haulers.asp</p>	High quality data; information will show trends of tires diverted annually; important considering the negative publicity of recent tire fires in State.

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<p><i>Waste reduction</i></p> <p>The number of State Property reutilized by the Department of General Services reported in tons.</p> <p>Data reported to DGS for used office and building supplies.</p>	III	CIWMB and DGS	No database.	Limited data is available by DGS on State buildings, supplies, equipment etc.
<p><i>Waste reduction</i></p> <p>Tons of materials exchanged through the voluntary California Materials Exchange Program (CALMAX)</p> <p>CalMAX is a free service designed to help businesses find markets for materials they have traditionally discarded. CalMAX helps businesses, industries, and institutions save resources and money. Since 1992 more than 650,000 tons of materials have been diverted from landfills and over 5.5 million dollars have been saved through CalMAX.</p>	I	CIWMB	<p>California Materials Exchange (CALMAX)</p> <p>www.ciwmb.ca.gov/calmax</p>	High quality data; Another option for concerned citizens to find alternatives to landfilling.

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<p><i>Waste recycling</i></p> <p>Tons of reusable construction and demolition (C&D) materials from old buildings</p> <p>Beneficially reusing metal, brick and wood in C&D projects and avoid using virgin materials. Disposal C&D debris wastes resources and shortens the life of landfills. In 1990, 46 of Cal.'s 530 jurisdictions reported C&D tonnage as a separate category in their solid waste streams. Their reported figures ranged from 0 to 55 percent, and averaged to 28 percent.</p>	I	CIWMB	<p>California C&D Recyclers database</p> <p>http://www.ciwm b.ca.gov/ConDe mo/Recyclers/</p>	<p>Data for specific and known C&D projects so data will be limited. The Construction and Demolition Recycling Program of the California Integrated Waste Management Board maintains a list of companies located in California that process and or recycle construction and demolition debris. The information on this list is updated annually.</p>
<p><i>Waste recycling</i></p> <p>Statewide recycling data, reported in tons, on bottles and cans.</p>				<p>Department of Conservation</p>

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<p><i>Waste recycling</i></p> <p>Tons of recycled materials diverted as a result of a Recycling Market Development Zone (RMDZ) program</p> <p>The RMDZ program provides direct loans to businesses that use post consumer or secondary waste materials to manufacture new products, or that undertake projects to reduce the waste resulting from the manufacture of a product. To be eligible, the business must be located in one of the 40 designated RMDZs and divert waste from California landfills.</p>	II	CIWMB	http://www.ciwm b.ca.gov/RMDZ/	The RMDZ program combines recycling with economic development to fuel new businesses and create jobs. Local government incentives include relaxed building codes and zoning laws, streamlined local permit processes, reduced taxes and licensing, and increased and consistent secondary material feedstock supply. Local incentives vary from jurisdiction to jurisdiction.
<p><i>Waste recycling</i></p> <p>Amount of recycled content products used in the manufacture of newsprint</p> <p>This grant program was established to assist local educational agencies in using recycled-content materials to upgrade the State's public playgrounds, prevent injuries and satisfy the California Department of Health Services' new playground safety regulations. Additionally, the use of recycled-content materials will help conserve resources and develop markets for these materials.</p>	II	CIWMB	http://www.ciwm b.ca.gov/RCP/	Although limited, the data does show the increased use of recycled content products including but not limited to newsprint, white paper, aluminum, batteries

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<p><i>Waste recycling</i></p> <p>Amount in tons of organic materials converted into reusable byproducts.</p> <p>Aggregate information is needed on the industry in order to better understand market dynamics, assist businesses and local jurisdictions in their efforts to divert organic materials, and provide quantitative measurements to determine the success of our efforts. Some information has been gathered on tons of product sold, end uses, etc. Examples of organic materials are compost, mulch and Alternative Daily Cover (ADC).</p>	II	CIWMB	No database but there is one report entitled "Assessment of California Compost & Mulch producers Infrastructure" for 2000.	High quality data but only for the one year; information will show trends. Perhaps of more importance is that such benchmark information can be used by the industry as a means of promoting its importance and influencing decision makers about the importance of composting activities.
<p><i>Waste recycling</i></p> <p>Tons of tires recycled as a result of waste tire grant monies</p> <p>The Board's tire grant programs are designed to encourage activities that promote reducing the number of waste tires going to landfills for disposal and eliminating the stockpiling of waste tires. Activities include tire pile cleanup and enforcement, market development, and demonstration projects. Revenue for the grants is generated from a \$1.00-per-tire fee on each new tire sold.</p>	I	CIWMB	<p>http://www.ciwm b.ca.gov/Tires/Grants/Cleanup/</p> <p>http://www.ciwm b.ca.gov/Tires/Grants/Amnesty/</p> <p>http://www.ciwm b.ca.gov/Tires/Grants/Enforcement/</p>	High quality data; multi-faceted means of tire recycling; encouraging manufacturers to come up with creative means of reusing tires over landfilling.

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<p><i>Waste recycling</i></p> <p>Rigid plastic packaging container (RPPC) recycling rate</p> <p>All plastic containers must be recycled at a rate of 25%.</p> <p>A company must comply with the law if it manufactures, distributes, or imports a product that is packaged in a "rigid plastic packaging container."</p> <p>As part of the requirements for calculating the RPPC Recycling Rates, the Board determines the percentage of single family homes in California serviced by curbside collection programs that include beverage container recycling. This service access is calculated based upon data obtained from the Department of Conservation and the Department of Finance.</p>	I	CIWMB	http://www.ciwm b.ca.gov/Plastic/RPPC/	<p>The Board is required by statute to annually calculate two recycling rates: the all container rate and the PET rate. The overall recycling rate accounts for a variety of containers holding products such as laundry detergents, motor oil, foods, cosmetics, and soft drinks. The polyethylene terephthalate (or PET) recycling rate includes containers such as soda bottles, water, and food. Food and cosmetics are included in the recycling rate calculations, but they are currently exempt from compliance with the RPPC law.</p>

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<p><i>Waste recycling</i></p> <p>Green building-# of LEED certified bids</p> <p>Sustainable design or building "green" is an opportunity to use our resources efficiently while creating healthier buildings. It provides cost savings to all Californians through improved human health and productivity, lower cost building operations, and resource efficiency--and it moves us closer to a sustainable future.</p>	III	CIWMB	No data base	Limited data; only two buildings have been registered using the LEED rating system; long term cost savings; The green building approach applies a project life cycle cost analysis for determining the appropriate up-front expenditure. This analytical method calculates costs over the useful life of the asset.

Sub-issue 3.2: Accidents/disasters/spills/releases

Sub-issue 3.3: Waste importation/exportation

INDICATOR	TYPE	SOURCE	DATABASE	Rationale For Selection
Amount in tons of solid waste imported into California	III	CIWMB	No existing data	No existing data information will track amount of waste generated in CA vs. waste imported outside of its boundaries.
Amount in tons of solid waste exported by California	I	CIWMB	Disposal Reporting System http://www.ciwmb.ca.gov/LGCentral/DRS/	

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Issue 4: Land disposal and contamination

Sub-issue 4.1: Land disposal

<i>INDICATOR</i>	<i>TYPE</i>	<i>SOURCE</i>	<i>DATABASE</i>	<i>Rationale For Selection</i>
Remaining landfill capacity available in California.	III	CIWMB	No existing data	No existing data; information will provide long term siting information for State and local jurisdictions.
Amount of Statewide disposal rates per capita rates	I	CIWMB, County disposal reports	DRS, MARS www.ciwmb.ca.gov/Central/Rates/Diversion/RateTabl.htm	High quality data; information will show historical trends of the disposal.
Number of waste tires disposed in state annually	I	CIWMB	Waste Tire Disposal http://www.ciwmb.ca.gov/TireDisposal/default.htm	High quality data; information will show trends of waste tires disposed annually.

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Sub-issue 4.2: Site contamination

INDICATOR	TYPE	SOURCE	DATABASE	Rationale For Selection
Amount of illegally disposed of solid waste cleaned up expressed in tons The cleanup of solid waste disposal sites where the responsible party either cannot be identified or is unable or unwilling to pay for timely remediation, and where cleanup is needed to protect public health and safety or the environment.	II	CIWMB, Remediation, Closure and Technical Assistance Branch/Solid Waste Cleanup Program (AB 2136)	No data base **In progress	Limited data; Information available will show what was removed and how much.

Issue 5: Cross-media contamination

INDICATOR	TYPE	SOURCE	DATABASE	Rationale For Selection
Number of environmental releases from active landfills The significant violations include and are not limited to gas, leachate seeps.	III	CIWMB	SWIS	Solid Waste Local Enforcement Agencies (LEA) inspect monthly at sites. Data is limited.

Abbreviation List: Sources: BOE = Board of Equalization, CIWMB = California Integrated Waste Management Board, DIR = Department of Industrial Relations, DOF = Department of Finance, EDD = Employment Development Department, SRRE = Source Reduction and Recycling Element, & C&D = Construction and Demolition.

Databases: DRS = Disposal Reporting System, JGAPS = Jurisdiction Goal Achievement and Progress System, MARS = Model Annual Reporting System, RMDZ = Recycling Market Development Zone, SWIS = Solid Waste Information System, WPMD = Waste Prevention and Market Development, OMMA = Organic Materials Measurement and Analysis